

Appl. No. 10/618,996

Response dated: February 28, 2007

**Amendments to the Drawings:**

None.

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Claims 1-20 are pending.

Claims 1, 8, and 14 were rejected under 35 U.S.C. § 102.

Claims 2-7, 9-13, and 15-20 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1, 8, and 14.

Claims 1, 8, and 14 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent Number 6,407,843, issued to Rowan et al. (hereinafter "Rowan"). Applicant does not agree that Rowan teaches the claimed invention.

The Action refers to the system 100 disclosed in Fig. 1 of Rowan, stating that the "system 100 includes a transmitter 102, an optical fiber 104, and a receiver 106. The transmitter 102 is coupled to the receiver 106 by optical fiber 104." The Action quotes Rowan and states, in part, that the system 100 disclosed in Rowan operates by receiving:

*N digital data channels 110A-N (collectively, digital data channels 110) and combines them into a single optical signal for transmission over fiber 104. The transmitter 102 accomplishes this by using a combination of quadrature amplitude modulation (QAM) and frequency division multiplexing (FDM). The optical signal created by transmitter 102 is transmitted across fiber 104 to receiver 106. Receiver 106 then reverses the functionality of transmitter 102, converting the optical signal into N digital data channels 120A-N.*

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In other words, Rowan teaches aggregating several low data rate signals into a high data rate signal, and then transmitting the high data rate signal over an optical fiber with improved optical bandwidth efficiencies. See, for example, Rowan at column 3, lines 24-33, and column 4, lines 3-13. At column 2, lines 48-52, Rowan states:

*There is a need for systems and methods which transmit digital data over optical fibers at high aggregate data rates and with high bandwidth efficiencies, but without unnecessarily increasing the speed requirements on the corresponding electronics*

In contrast, the present invention teaches improved security for data transmitted on optical signals by separating input traffic into several data signals and transmitting the data signals on separate optical channels.

While Rowan does teach elements such as separating, transmitting, receiving, and combining, Rowan fails to teach those elements as claimed in the present invention. For example, Rowan teaches receiving multiple, low data rate signals (110A-N), combining or aggregating those signals in the transmitter 100, and then transmitting the aggregated signal over optical fiber 104. The purpose, as stated in Rowan, is to increase optical bandwidth efficiency of the system. In contrast, the first part of claim 1 of the present application recites a method including:

*separating the input traffic into a plurality of data signals;*  
*parameter encoding the data signals;*  
*transmitting each of the data signals on a separate optical channel;*

This portion of the claimed invention is the opposite of that which is done by the transmitter 102 in Fig. 1 of Rowan. For example, the transmitter 102 of Rowan fails to teach separating the input traffic into a plurality of data signals and transmitting each of the data signals on a separate optical channel. On the contrary, Rowan teaches aggregating signals and transmitting the aggregated signal on one channel. Therefore, Applicant submits that Rowan fails to teach the invention recited in claim 1 of the present invention.

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The receiver 106 of Rowan does teach separating signals and transmitting those signals as separate signals 120A-N. The Action did not specify which element of Rowan was used to support the rejection of the first part of claim 1 of the present invention. If the receiver 106 of Rowan is read to teach the first part of claim 1 of the present application, then Rowan fails to teach the second part of claim 1, which recites:

*receiving the data signals on the channels;*

*parameter decoding the data signals; and*

*combining the plurality of data signals from the channels into output traffic  
corresponding to the input traffic*

The Action does not cite the receiver 106 in Rowan as teaching these elements and Applicant submits that Rowan does not teach these elements. The teachings of improved bandwidth efficiencies claimed by Rowan are accomplished by the time the data signals 120A-N are output from the receiver 106. Those data signals 120A-N may be dropped to a local network or otherwise used in a way other than recombining them to correspond to the input traffic from the fiber 104 as set forth in claim 1 of the present invention. Regardless, Applicant submits that Rowan fails to teach second set of elements in claim 1 of the claimed invention.

The remaining independent claims, claims 8 and 14, contain limitations analogous to those discussed hereinabove with regard to claim 1. Therefore, for at least the reasons set forth herein, Applicant submits that Rowan fails to teach or suggest all of the elements in independent claims 8 and 14.

Claims 2-7, 9-13, and 15-20.

Claims 2-7, 9-13, and 15-20 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Therefore, Applicant submits that those claims are patentable over Rowan.

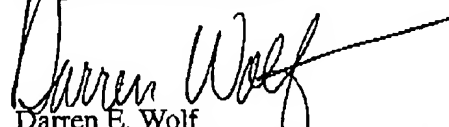
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Applicant submits that the application is in condition for allowance. If the Examiner has any questions pertaining to this Amendment or to the subject application in general, the Examiner is encouraged to contact the undersigned.

Applicant believes that no fees are due with this Response. However, in the event fees are due with this Response, the Commissioner is hereby authorized to debit such fees from Charge Account Number 50-3198, in the name of Dickie, McCamey & Chilcote.

Respectfully submitted,

  
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